MODIS Quality Assurance Databases – Dr. Min Zheng

The MODIS Q/A database tables are implemented in the Sybase RDBMS. The following is a description of the quality assurance information in these databases:

QA Metadata Database
- There are two databases one for each of the two most recent collections (C4 and C5)
- In each database
    o For each ESDT (product) there are four main tables.
        ▪ T1: Core metadata (except QA flags)
        ▪ T2: QA flag metadata
        ▪ T3: Product Specific metadata
        ▪ T4: Input Pointer
    o List of core metadata and the QA metadata can be found at
      http://landweb.nascom.nasa.gov/cgi-bin/QA_WWW/newPage.cgi?fileName=core_meta&subdir=modland_v2_metadata.
    o There are about 77 products from Aqua including combined Terra/Aqua and 74 from Terra for a total of 151 x 4 tables per database (collection). This is an approximate number of tables that will be accessed in a day.   In all there are about 6 million records in the table for each year.
    o Ingest rate is roughly 300-400MB per day.

Golden Tiles Time Series Database
- There are two databases one for each of the two most recent collections (C4 and C5)
- In each database
    o There is one table for storing statistics from each ESDT (product) and tile. There are about 31 ESDTs and 9 tiles. Totally 279 tables. One ESDT/tile table contains stats from both Aqua and Terra. Some of the esdt listings and the 9 tiles are listed at http://landweb.nascom.nasa.gov/cgi-bin/tsplots/genOption.cgi. There are three types of tables.
        ▪ Type1: For surface reflectance and downstream products, and LST the table records are: SDS, day, class, npix, mean, std_dev, min, max and satellite
        ▪ Type 2: For Snow products the table records are: SDS, day, class, npix, nodecision, land, snow, satellite
        ▪ Type 3: For Fire products the table records are: SDS, day, class, npix, no_fire, unknown, fire_min_conf, fire_med_conf, fire_max_conf, satellite.
        ▪ Types of classes – landcover, biome, and sites
    o Ingest is once in a week

Finally, there are the product specific database tables for each land product. The information in the tables are described at the following web site:
http://landweb.nascom.nasa.gov/cgi-bin/QA_WWW/newPage.cgi?fileName=psa_main&subdir=modland_v2_metadata